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DEMOCRACY AND EDUCATION

By N. W. WALKER
The University of North Carolina

"Education in a democracy may be regarded from two points of view: the welfare of the community as a whole, and the welfare of the individuals of whom it is composed. These two ought in the main to coincide, and must do so, if the hopes of democracy are to be realized. It is not difficult to show that this is the case in respect to education. The welfare of the community requires the best-equipped men it can procure; men who will place at its disposal in the largest measure the resources of nature, of the arts, of the manifold benefits acquired by the slow progress of civilization; men whose minds are trained to see clearly and think straight; men of wide knowledge and interests, with a broad and kindly outlook upon life and its problems."

A. LAWRENCE LOWELL, President of Harvard University

THE THEORY of public education may be summed up in few words: Every normal child born in society is regarded as a potential social asset. If he is developed beyond the common level of society, in intelligence and morality, for example, the influence he exerts upon society tends to lift it in these two respects to higher levels. Thus he contributes something to the welfare and progress of society. If he is developed only to the common level, he simply carries his own weight and makes no contribution to the common good; society in this case, so far as he is concerned, remains static. If he is left untrained, is not developed at least up to the common level, the influence he exerts is as a check upon the progress of society tending to hold it to lower levels. This principle holds in theory at least whether you apply it to social intelligence, to morality, or to productive industry. In our democratic social order every individual is going to make his contribution whether he is educated or not, whether he is civic-minded or not, whether he is strong of body or not, whether he has special talent or not. It is one of the chief concerns of society to see to it that each and every one of the individuals composing its membership is prepared—or at least is given the opportunity to prepare himself—to make his contribution a *plus* and not a *minus* quantity; to see too that each one is given a chance to express himself back to society in some useful, helpful way; or, as President Lowell has said, to "place at its disposal in the largest measure the resources of nature, of the arts, of the manifold benefits required by the slow progress of civilization." Looking at the boys and girls of this great republic who are to constitute its citizenship tomorrow, and looking at society in the large and its actual needs, isn't it perfectly plain that the community, the state, and the nation sustain a permanent loss whenever any child in any community of this land is allowed to grow up in ignorance, when he might have been intelligent; or weak of body, when with proper attention at the right time in his life, he could have been strong; unskilled in any vocation, when he possessed the talent or the ambition to do something that needs to be done? Through somebody's negligence the individual has suffered; and wherever an individual suffers, society in the large loses something it can never regain.

This democratic conception of the scope and function of public education is sufficiently comprehensive to include the whole man—the physical, the moral, the intellectual, the spiritual. It is broad enough to include all men—rich and poor, high and low, black and white; it is broad enough to include all the needs of the individual, and all the needs of society; it is as broad in a word as life itself, for if a man's education is intended for anything it is intended from an individual viewpoint to enlarge, to enrich, and to develop life to its fullest possibilities. Any conception of education that is less broad than this is unworthy of the name of democratic. Moreover, this conception is broad enough to challenge the best there is in any and all individuals, and all groups of individuals or society as a whole. It is broad enough, when actually put into practice, as it will be one of these days, to put every member of society under con-

stant stimulus and incentive to make the most of himself—to burgeon out all there is within him; and it is broad enough to enlist the sympathetic support and coöperation of every intelligent and patriotic citizen. Such is the conception of leading educators and statesmen today, and it is their hope and their dream to see its fulfillment as it gets into the lives of men everywhere in every calling and in every profession. This conception, to be sure, represents a far call from the time when the common man was not permitted to know about the higher things of life and the larger opportunities that are his by birthright—from the time the sacred Bible was chained to the pulpit to be read by the privileged few, to this good hour when every man born of woman enjoys the freedom for which the slow centuries have been struggling.

I

The function of the public school system in a democracy is determined by the character of the democracy. In a government like ours in which every citizen is equal before the law and has an equal voice in determining what the law shall be, it follows inevitably that the educational system should promote not only the welfare of the individual but the welfare of the group of individuals composing the community, the state, the nation. And the welfare of the one is not at variance—or should not be—with that of the other. But somehow men do not always recognize this fact. Rank individualism that regards not the welfare of the group, that looks upon the group as something to be exploited for its own selfish purposes, not only makes effective coöperation impossible in state and national affairs, but is also a positive menace to the common good. And on the other hand, a strongly centralized paternalistic government, or a strongly organized group of wilful selfish individuals under the government, that regards not the individual and his rights as sacred, but looks upon him as something to be used for its own selfish purposes is a dangerous foe to human welfare.

The six reasons enumerated in the preamble to the Constitution of the United States for the promulgation of that document should in reality be regarded not only as the major objectives of our national government but of every public school system in the nation. This is true because of the intimate potential relationship that the public school bears to good citizenship and thus to our democratic order of society. Has our democracy realized the full importance of this relationship? This question is today a fundamentally vital one. Have we yet found a way to provide equal educational opportunity for all, yet leaving all free to accept this opportunity, and at the same time to make sure that all will take advantage of it to the extent at least that even the majority of our citizenship will become civic-minded, effective workers, respecting both the rights of others and the laws and institutions that democracy sets up for its own progress, welfare, and perpetuity? In a word, have we yet found a way of living and working together so that each shall contribute to the happiness and welfare of all, and all shall contribute to the happiness and welfare of each?

The greatest single integrating and unifying force or agency in our American life is the public school. It offers the finest opportunity for instructing our citizenship about our common ideals, the cherished traditions of the race. There is today too strong a tendency toward class consciousness in our American life that sometimes would have the temerity to set up group interests above the interests of society as a whole. The tendency must be checked, and it will be checked, or else chaos must inevitably result. The question involved in any public issue, where factional consciousness prevails, is not what is best for all concerned—and our young citizens must be made to realize that we all are concerned in every issue—but what is the dominant group willing to do about it. This is autocracy, and not democracy. So long as the citizenship of this republic is devoted to the highest common ideals of our civilization, we need have no fear for the final outcome of any issue submitted to its sober judgment—not that mistakes will be altogether avoided, for such is not possible, but they will ultimately be corrected when they are discovered; not that justice will always be meted out as speedily as we may sometimes wish, but it will be meted out in the end. We may not settle coal strikes, and ratify peace treaties, or mete out justice to offenders as speedily always as the exigencies of the case may demand; but we will settle the strikes, and ratify the treaties, and mete out justice finally. Even intelligent public opinion may sometimes go wrong. But the beauty of our system is that it has the opportunity to get right, and that it will get right in the end. As an agency for social control no other institution has the opportunity and the obligation that rests with the public school in a democracy like ours. Is is in fact the very foundation stone of popular government. And the nation is fast coming to recognize it as such.

The school is in fact the one universal agency that society has set up especially for its own progress and welfare. That the national government has left the matter of education to the several states, and that the states have neglected certain aspects of it by turning over to local communities too large a share of the re-

sponsibility, as well as too large a part of the financial burden, may obscure but it does not alter the actual and potential relationship that exists between the school and society. Through the school we somehow expect to get over into the lives of men a common body of knowledge and ideals, together with certain individual skills, that will make it not only possible but more certain that the succeeding generation of men and women may live more abundantly as individuals and function more effectively as citizens of the commonwealth and the nation. Looked at from this angle, it would seem that the school's function is as broad as life itself and as fundamental as are the deepest needs of the community that supports it; that its processes are as complex as those at work in the society about it, and as dynamic as are the principles and forces that operate in the lives of men.

In making this assertion, one need not be misunderstood as subscribing unreservedly to all the ill-advised "fads and frills" and theories of "soft pedagogy" with which American education is afflicted.

II

In 1918 Dr. Charles W. Eliot, President Emeritus of Harvard University, Dean of American Educators, prepared for use at the fourth annual commencement of Reed College a remarkable statement of the defects in American education and suggested the remedies for their correction. Dr. Eliot's paper is so clear in its analysis, so comprehensive, and yet so brief (only 8 pages), it ought to be read and carefully studied by every teacher, principal, superintendent, and school board member in this land. It was published by the U. S. Bureau of Education in June, 1918, as "Teacher's Leaflet No. 5." I summarize it briefly. He presented the analysis under two heads—(1) Physical Defects, and (2) Mental Defects. Under the former head he enumerated seven counts, and under the latter head, four, as follows:

(1) Bodily defects and disorders that "impair the capacity of the children to work efficiently in school and of the young men" for service in the Army and Navy. (2) Bad diet and its ill effects. (3) The lack of systematic physical training. (4) The abnormally high rate of infant mortality. (5, 6, and 7) The general prevalence of tuberculosis, alcoholism, and venereal diseases. "In spite of the revelations made during the past ten years, concerning the prevalence and horrible effects of the venereal diseases among the American people, the schools, colleges, and churches of the country have done practically nothing to direct the attention of pupils, students, and parents to the need of defensive measures against these worst of scourges and to the elements of defense." (8) Illiteracy. "The last census showed 7.7 per cent of the population ten years of age and over unable to write their own language, the percentage ranging from 1.7 per cent in Iowa to 29 per cent in Louisiana." (9) The lack of manual skill. "Most college graduates," he says, "cannot draw, sing, ride, row, play a musical instrument, or use well a scythe, saw, plane, test tube, theodolite, compass, or microscope." (10) Little training of the senses. "In most American schools there has been a lack of systematic training of the senses, and little intelligent effort has been made to procure incessant activity on each pupil's part to record, remember, and describe accurately observations made by his own senses. Little systematic training has been given day by day in the processes of determining facts and weighing evidence. No systematic, everyday practice of accurate statement in speech and writing has been insisted on. Worst of all, most American schools have neglected to enlist and cultivate assiduously the interest of each pupil in his daily work, in spite of the obvious fact that no human being, child, adolescent, or adult, can do his best work unless he is taking an interest in that work. Hence, American schools have, as a matter of fact, failed to train the great mass of the children for the successful earning of a livelihood in the American world of today, and at the same time they have failed, for the most part, to inspire the children with the tastes, ambitions, and aspirations which would guide them to a sensible and enjoyable use of leisure." (11) No habitual accuracy of observation or of statement. "These incapacities are exhibited," Dr. Eliot says, "just as much by highly educated Americans as they are by the uneducated, especially if the defects of their education have not been remedied in part by their professional experience and scientific training."

This bill of particulars constitutes one of the most severe indictments of American education that has been made by any intelligent and responsible observer. There are, of course, here and there a few schools that will undertake to plead "not guilty" on some of the counts, but those that can present a clean bill of health are few and far between.

Is the indictment just? If so, where lies the responsibility?

The remedies Dr. Eliot suggested for the defects he enumerated in his analysis of our educational situation are the remedies that are advocated by progressive leaders in education the country over. Briefly summarized, they are:

(1) Make the medical examiner, the school nurse, and the district nurse regular members of every school system in the country, under national, state, and

municipal authorities. (2) Provide instruction in physics, chemistry, biology, and home economics in all schools. (3) A prescribed program of physical training by means of Federal aid with national inspectors to see that the program is carried out. He argues that this one provision alone would greatly increase the productiveness of the national industries, to say nothing of the increased happiness. (4) A more general diffusion of knowledge of the elements of personal and community hygiene. He argues that every secondary school in the country should give this instruction under national and state inspection; no employment of women in indoor machinery industries after marriage. (5) Teach the facts to young and old alike. (6) Put the schools under obligation to teach the facts. He adds: "No vested interests and no class privileges should be allowed to interfere with the discharge of this serious public duty." (In this connection, may I add a word for the schools? The prohibition wave that has swept the country in recent years is due, in the writer's judgment, more to the instruction, crude though it often was, given by teachers in the schools who taught the evil effects of alcoholic drinks and narcotics, ten, twenty, thirty years ago, than to the efforts of all other agencies combined. The nation now is getting its return on the investment in this phase of education which the states made years ago, and the schools ought to receive their share of the credit.) (7) "Again the vital remedy is education." (8) Increased interest of state and national governments, with Federal and state aid; bring to bear on this problem the influence of colleges and universities, as well as public officials, in support of a program to wipe it out. (9) "Every school program in the United States should provide at once for the acquisition by every pupil of some kind of ocular or manual skill." (10 and 11) "The substitution of teaching by observation and experiment for much of the book work now almost exclusively relied on; the cultivation in the pupils of activity of body and mind during all school time—an activity which finds delight in the exercise of the senses and of the powers of expression in speech and writing; the insistence on the acquisition of personal skill of some sort; the stimulation in every pupil of interest in his work by making the object of it intelligible to him, whether that object be material or spiritual; the inspiration in every child of tastes and sensibilities which he can use to promote actually his present enjoyment and therefore in all probability his future happiness; and finally the persistent teaching of every pupil how facts are got at in common life, how to make an accurate record of observed facts, and how to draw safe inferences from well-recorded facts. Every boy and girl in school should learn by experience how hard it is to repeat accurately one short sentence just listened to, to describe correctly the colors on a bird, the shape of a leaf, or the design on a nickel. Every child should have had during its school life innumerable lessons in mental truth-seeking and truth-telling. As things now are, comparatively few children have any direct lessons in either process."

III

If Dr. Eliot's views fairly represent the consensus of enlightened public opinion in America, why is it that the schools are not permitted to function more completely and more effectively in attaining the objectives here suggested or implied? Where lies the responsibility? With the teachers of the nation? With the educational leaders? With the public at large?

The responsibility for any failure on the part of our schools to function as completely as the implication is that they should rests not simply with the teachers, not wholly with the educational leaders, nor yet is it to be sidestepped or lightly dismissed by simply saying an indifferent public is to blame. Of all the public enterprises of our democracy, the school is *par excellence* the one great coöperative enterprise. This being so, the responsibility is to be shared by all. Are the results implied in the foregoing discussion what the public actually wants and expects of the schools? Are they the things the public thinks it has been paying for? If these are the results desired, not simply by the teachers and school officials, but by the public at large (for the teachers and school officials are but the servants of the public in its effort to achieve certain ends), is the public willing to pay the price necessary to secure them? Isn't it possible, isn't it necessary for the educational leaders and the teachers on the one hand and the public at large on the other hand to get together and agree on a broad yet rather definite program of procedure? It would seem to be absolutely necessary if the great tasks confronting the public schools are to be performed in the most effective manner. And in our efforts to arrive at a working agreement the school leaders must reckon with the public as it is, and not with an imaginary public that is not.

There are today many leading writers on educational subjects whose idealism might be incorporated in the educational program of an ideal society; but somehow they fail to reckon with the hard-headed public; they fail to connect up their thinking with the thought of the work-a-day world, and as a result the work-a-day world has not kept apace with them. Sometimes they are shocked when their conclusions in

which they have absolute confidence are not accorded a hearty reception by the public. This same public, to whose judgment every program has to be submitted for its sanction, somehow believes that in education as in everything else there is safety at least, if not rapid progress, in the lines of the beaten path. We need not, therefore, fret about the bondage of precedent or the tyranny of tradition; they are facts, stubborn facts to be sure, to be reckoned with in a democracy. In education, as in everything else, the people are going to have about what they want—not always what you would have them want.

If we are ever to put into operation the larger and more vital educational program the urgent need for which is so keenly felt at this time, three things are absolutely essential: (1) A general agreement on the major objectives of such a program, together with a more liberal public opinion with regard to both financial support and educational ideals; (2) a trained and competent administrative force, including superintendents, supervisors, and educational leaders; (3) an educated teaching force, trained to perform the tasks expected of the modern school in a democratic social order.

ON BUILDING BUILDINGS

By L. A. WILLIAMS
The University of North Carolina

DO YOU expect to build a new schoolhouse this year or in the near future? In many communities this is a pressing problem and one engaging the time and thought of school officials and taxpayers. If this is one of your problems have you worked out a program of building? Just what is your building program?

For that matter, what is a building program anyhow? As I see it, a building program is a wise man's precaution against future trouble. To have a building program is to *know* what you want and go after it, but the essential feature of the program is to *know* what you want. To build without a program is like cutting a dress without a pattern, weaving gingham without a design, writing a story without having a plot, shooting a gun without taking aim. You may find that the dress fits, the chances are it won't; you may weave a design, but it will be pretty sure to be crazy patchwork; you may write a story, but it will not sell; you may "bring home the bacon," but you are tempting Lady Luck. You may get a building, but it will not meet your needs.

If you intend to build, find out first what sort of a building you need,—don't go after a bond issue with the first ball pitched. Find out what features you would have in your building. How many classrooms do you need and for what grades do you need them? According to your age-grade census what grades will need most attention and room for the next five or ten years? How rapidly is your town growing? How many new rooms will you need each year for a five-year or a ten-year period? Do you need an auditorium in this new building? Should it provide space for only the pupils in that school or also for the immediate community that building will serve; or should it be ample to serve as the public auditorium for the entire town or village? Does your plan of work contemplate supervised study? Then how many study halls or how much study hall provision ought you to make? Have in mind the unit plan of construction in order that as your school needs increase and your enrollment grows apace, as it will, you may add to your building without destroying its unity, beauty, and utility, or sacrificing proper lighting, ventilating, and heating features. You may not be able to build now for ten years from now but you can anticipate and prepare for the needs of the school ten years hence.

Consider the various desirable features in modern school buildings and determine which of these you would like or can afford to have, or cannot afford to go without, in your new building. For example, think about wardrobes, lockers, rest rooms for teachers, library, music room, lunch rooms, special rooms for special classes, shower baths, dressing rooms off the auditorium stage, administration offices, a swimming pool, a gymnasium, laboratories, and so on *ad infinitum*. Which of these must you have, how many of each, how large—i. e., to accommodate how many, located about where in the building? These are all matters for you to decide first of all.

Until you know something about what you need for a building you are not ready to do anything else—even look for a lot. Having determined on the sort of building you need, you are ready to consider the site. In choosing the site there are two major points to be considered—first, where ought the new building to be located in relation to the children it must serve or may have to serve as the section or community expands; second, what sort of a lot is suitable for the building you have in mind to build? To be sure you need also to consider availability of land, size of lot

needed, distance from smoke and noise producers, ease of drainage, proximity of trees or high buildings to shut out light, and a dozen or score of other essential features and conditions.

Be sure to get your lot big enough to provide ample playground area. Don't skimp the pupils on play space outdoors or on air space and light indoors. Not only that, but be sure the site is suitable for a playground. Don't locate the building on a sloping lot where the only games the children can play are sliding games or climbing games.

Having determined the kind of building and the features you would have in it, and having selected the site, you are now ready to talk with an architect. Get a reliable and experienced designer of school buildings —not a builder of tobacco barns or a dreamer of churches, i.e., get a man who knows what a schoolhouse is for and how to put into a schoolhouse school, not architectural features. Having caught your architect, show him the lot, give him your list of rooms, size of auditorium, gymnasium, etc., etc., and ask him to make you preliminary sketches and elevations of a building embodying *your* ideas designed to fit the location *you* have determined upon. This is your building to be built to serve the needs of boys and girls in your community and not the architect's building to show how skillful he is in producing special architectural effects on the exterior and in covering up the non-school defects of the interior.

With these preliminary sketches in hand, you are ready to consult with a contractor. Get him to estimate, roughly, the cost of the building. Get the architect to give you his estimate also. Having these estimates in hand, you had better play safe and add about 10% (or more) to the highest estimate—this will give you the cost of the building alone, perhaps! Add to this the cost of the site and approximate cost of any other features you have in mind for the building, i. e., seats, desks, teaching equipment, playground apparatus, etc., and you now *know* somewhere near how large a bond issue you must have. Right here let it be said that in planning for libraries and laboratories you must plan to equip them. Do not do as so many have done, provide space for these rooms, designed for these particular purposes and then because they are not equipped with books and apparatus turn them into recitation rooms for which they were never designed. Get these rooms, if needed, into your building, but also get proper equipment in them and put them to use. Incidentally, the cost of this equipment should be included in the estimate for the new plant you are planning; it is investment capital and ought not to be supplied from maintenance funds.

This may look like reverse English to some, but experience shows the folly and calamity of any other plan. A bond issue looks big enough until you turn an architect loose on it; and, after he is through with trying to keep his ideas within the limits set by the bonds, you have only a remnant left of the big plan you thought you had in mind when you began to talk about a new building. Go at this thing right! Be sure you get an architect, the very best you can secure, to embody your ideas in plans. Don't trust to some local contractor or carpenter. Go after the best man you know or can find out about who knows school architecture. Have your own ideas about what should be in that building, cut out features if you have to, but *you* cut them out for your own reasons and not because the architect tells you this or that "may, perhaps, be omitted," but have these ideas incorporated by a trained designer of school buildings. *You* choose what features shall be done away with, *you* do the omitting, *you* keep check on the terra cotta work, the turret-effects, the over-decoration, the elaborate entrance, etc.

This may seem as if the architect were thought to be a rascal. Not at all; he is an architect, he loves his work, and is eager to make it conform to architectural judgment and to see how new ideas will work out. The architect has no desire to be other than true to his profession and he will do all in his power to set out the architectural viewpoint. He is thoroughly all right and fine, artistically devoted to his craft and to be honored for his devotion. The point lies here,—you are a schoolman, you are devoted to your craft, and you must see to it that the building which the architect is constructing for you shall be first of all a *school* building; after that it may be an architect's building. You must be true to *your* profession, you must serve your muse even as the architect serves his. He knows his business. The point is,—do you know yours?

Nor does this mean that you ought to neglect the element of beauty in your building. On the contrary, you must see to it that the building is made as much a "thing of beauty and a joy forever" as is humanly possible. However, there is no beauty equal to the beauty of simplicity combined with utility where a schoolhouse is concerned, and you must needs consider the elements of simplicity, utility and durability as of major importance compared to decoration and the ornate and insist upon the beauty of the former type as of primary importance. To secure decorative features at the cost of simple lines with usefulness is not only bad art, it is bad business as well.

What about it, Mr. Schoolman? Have you a building program? Do you see any sense in having a building program?

Perhaps it would not be amiss, in view of the many calls coming to me for information and assistance, to mention a few of the sources of aid for schoolmen in getting schoolhouse ideas. Every issue of the *American School Board Journal*, a professional magazine published monthly in Milwaukee, Wis., contains pictures of modern school buildings and desirable new features. At least once every year an entire number is devoted to school buildings. One of the very best books on the subject of school buildings is the one by Mills on *American School Building Standards*, published by the Franklin Educational Publishing Co., Columbus, Ohio. The cost is five dollars but the ideas, plans, suggestions, directions, tables, and pictures found in it are worth many times the cost. The Bruce Publishing Co., in Milwaukee, Wis., have also a series of books (3 in the series) dealing with both elementary and high school building ideas. These books have been made up from the pictures, cuts, and designs appearing from time to time in the *School Board Journal* referred to above. Finally, there is the Bulletin of the United States Bureau of Education, by Dresslar, on *American Schoolhouses*. This latter may be difficult to secure as there has been such a demand for it the supply may be entirely exhausted.

A final word of warning seems appropriate. Don't think this short article has discussed completely the problem of school building and building programs. Only the most salient and outstanding features have been hinted at. There is the question of specifications, ventilation, heating, tinting of the walls, placing of blackboards (incidentally, demand slate blackboards, they cost very little more, are everlasting and are the only entirely satisfactory blackboard), seats and desks, lighting, fire protection both from the heating apparatus and from accidental causes above the basement, corridor space, size of rooms (so as not to allow crowding); in fact, one might do as others have done, write volumes about important details of school buildings. The final point to be made is, get ideas about correct building before you ask the citizens to vote for bonds which shall tie up their taxes for years to come. It is not fair to them to secure their consent to issue bonds and then not give them adequate school facilities as you promised them when you asked that the issue of bonds be carried. Find out first your needs, plan according to your needs now and—in so far as possible—try to anticipate the future needs for ten years ahead, and then frankly put it up to the taxpayers to decide whether or not they are willing and able to meet their school building needs. Follow the lead of the business man—he first finds out the needs of his business in terms of his business, if he wishes to enlarge his factory; next he has plans and sketches made to suit his needs; then he gets an estimate on the costs, and, if necessary, he goes to the bank and hires the necessary money or he increases the capital stock as demanded. Mr. Schoolman and Mr. Boardmember, public education is important big business; go about this business in a businesslike way for it is your business.

THE SCOPE AND OUTLOOK OF VISUAL EDUCATION*

By J. PAUL GOODE
The University of Chicago

WE HAVE grown so accustomed to the printed page as the foundation of school education,—so satisfied with the old routine of assigning so much text, and demanding a reaction from the pupil in some oral or written test, that it may be actually something of a shock to have a change suggested. Yet we have discovered that the printed page is one of the slowest means of presenting a wide range of information.

One of the oldest studies in the school, geography, was first to take advantage of visual methods. The map is a system of short hand in presentation to the eye of space relations. And yet it has never been made to give its best service to the pupil. In all geography rooms, globes and maps are essential, but the very great value of the desk outline map, to be filled in by the pupil, in exercises and tests on distribution, is a largely untilled field in education. We are not only eye-minded, we are hand- or motor-minded; and working on a map has possibilities in education, largely overlooked.

Very early the geographer introduced the *picture* as aid in the presentation of his subject. But it is only in recent decades that the value of the picture has been demonstrated in many other lines as well as geography. A reading book in the lower grades nowadays is unthinkable without generous illustration. All the sciences and arts use the picture and the diagram, in increasing measure. The growing generosity of illustration by the current magazines and certain daily papers has been a god-send to the schools wherever live teachers have undertaken to collect and use these

* Presented at the Cleveland meeting of the N. E. A., February 25, 1920.

pictures. One of the best services has been that of the National Geographic Magazine. Its collection of pictures, now over fifty thousand, are being reprinted and made available at cost for the individual pupil's use.

The success of this picture phase of visual education has been marked. But the pictures are as a rule too small for class use. This early led to the use of the projection lantern. But the lantern of early day was a cumbersome thing. The coming of electricity gave much more freedom, but even here the danger of open circuits and the attention to the open arc have kept the equipment out of common use.

The coming of the Mazda filament lamp, however, has thrown all barriers down. The lantern is coupled into any lamp socket, it can be safely managed by any child, the light is so intense that the darkening of the room is not a serious matter. By means of the reflectoscope, book and magazine illustrations become available also.

The lantern makes possible and profitable the use of many maps and graphs as well as pictures. A map can be copied into a lantern slide and colored for a dollar or so and thrown on the screen on a scale much larger than any printed map obtainable. This gives unlimited freedom to the instructor for many maps which we may never hope to have published in large form could be used with profit in the classroom.

The graph is a device in visual education which has large possibilities and is but little developed. A whole page of statistics can be thrown into the form of a curve, as for example, the production of wheat year by year for a generation and the *trend* of production can be read at a glance. One may notice the conspicuous success of the Babson curves of business expansion and depression and the growing use of graphics in many lines of business to realize something of the possibilities of this form of visual education.

The finest service yet rendered in the school room has been done by the stereograph. The photograph presents but two dimensions. But the stereo camera and the stereoscope work a miracle. They supply the actuality of binocular vision and the third dimension is presented to the eye in vivid reality. The person who looks through the stereoscope looks upon the real mountain, looks into the depths of the real canyon, looks upon the actual statue, the actual cathedral.

The genius who learned how it could be made best to serve the purpose of school room work, is Mr. B. L. Singley, of Meadville, Pennsylvania. Mr. Singley discovered that the stereograph must be worked, but not overworked. It must help get the day's lesson, not get in the way of the lesson. It must occupy the student without the attention of the teacher. It must lead the pupil to apply himself and learn for the pleasure of learning.

The method is simple. An ample supply of stereographs is provided. The number in one standard set runs to 600. The subjects have been chosen to cover the whole earth and with selections so made as to cover many topics which will be studied in geography, in history, in literature. These stereographs have been classified into all the topics where their use may be profitable; cross referenced and indexed and the whole study published in book form as a Teachers' Guide so that the teacher may find any stereograph available for teaching any subjects as easily as she can find a word in the dictionary and can put her hand on the required stereograph without a moment's delay.

Each stereograph has on the reverse side a description running to 250 words, written in an interesting style, and carrying the necessary information to the student. In use the teacher would put out the stereoscope and one or two stereographs relating to the next day's lesson. Sometime during the study periods of the day each pupil would study the stereograph, read the description and be ready next day to tell what he saw. In this way it can become a game to see who will stand and report in good English what he saw, looking through the window of the stereoscope into the reality beyond. At the end of the week or when the review on the country or topic comes, the same views in lantern slide form can be put before the whole class and some pupil chosen to stand before the class and discuss what one view presents and other pupils report on other slides.

A real interest can thus be aroused and consequently better teaching results. Live material is always in hand for drill in geography, history, English. The sets of views are now in common use all over the country. It is a first-class contribution to visual education.

The stereograph arrives at one apex of perfection in that it presents the perception of solidity and distance, the *third dimension* of the view. There is nothing to compare with it in this service, but it presents a static world. Motion is absent. Yet *motion* is another "dimension" and the presentation of motion in the picture is an arrival at another apex of perfection. The gracefully-moving animal, the rushing waves, the swaying trees, are all there to the last perfect detail of motion.

Since education comes through arousing the interest of the child and since the power of the movie to arouse interest is patent to all, it has occurred to many people to draft the movie into the service of the school room. Every trial has shown some measure of

success, but always some critical drawback has arisen to block progress. The flickering light on the screen is hard on the eyes. The projection machine is very expensive. It uses a large current which may be dangerous especially as it is likely to set fire to the film. That puts it under ban by the insurance interests and an expensive housing or shelter is required. This restricts its use to the auditorium and this in turn takes it out of the reach of class work. The films are very expensive and for the most part have been made with the one aim of entertainment or of advertisement so may not be satisfactory or even usable for purposes of instruction. In short, the whole matter up to the present moment seems like an exhibition of misfit effort showing a lack of intelligent co-operation on the part of the interests directly involved.

And now comes another genius in the person of Professor Forest Ray Moulton, of the University of Chicago, one of the leading mathematicians of the country. Professor Moulton found that the standard projection machine is very inefficient, the screen being lighted only one-tenth to one-third of the time, the other nine-tenths or two-thirds of the time being in darkness. Hence, the flicker. He invented a new movement reversing the ratio of service having the screen illuminated nine-tenths of the time and the *flicker disappears.* Not only this, but the motions are smooth and natural, not jerky.

Since only about a tenth of the current hitherto used is required, the machine for a classroom can be coupled into any lamp socket and operated by a child. The machine can be stopped at will and held at any point for study and discussion with no danger of setting fire to the film.

With these advantages in hand a Society for Visual Education has been formed for the purpose of solving the problems in the adaptation of the cinema to purposes of instruction in the schools. All sorts of tests and measurements will be made to find out the place and best service of each of the devices in visual education in the administration of the school program.

But let us make no mistake as to the efficiency of any or all the devices which may be used in visual education. No one of them or all of them will ever take the place of the live, earnest, competent teacher. Moreover the best of teachers will have to be initiated into the best methods of using the graphic material. All of the visual devices together will not remove the need of effort or work on the part of the pupil. The pupil's real achievement will be measured by the attention and effort of the pupil. But the visual helps will rouse interest, stimulate attention and reduce effort so more ground may be covered in a given time. So also may a higher record of achievement be won by a larger number of pupils.

And this brings us to the economic phase of our quest. It will pay school boards to invest in the proven methods of visual instruction. The Racine, Wis., schools in 1910 compared well with the schools of other cities of similar size the country over. Their record of pupils failed at the end of the year was low, —only one in ten of the pupils below the high school. A ten percent failure was to be expected. In 1910 these schools began to adopt the stereographic equipment called the "600 set," and the failures began to decrease. Rooms began to make a record of no failures at all during the year. In 1914 the Russell Sage Foundation made a wide study of "failures and promotions" and the Racine schools were recorded as showing an average of 5% of failure. The survey also brought out the fact that in the schools where the new system of visual education was not used the record still stood at 10%. In the 5,000 children in the Racine schools, between the kindergarten and the high school cutting the failures from 10% to 5%, gave promotions to 250 pupils who without the improved instruction would have been ranked as failures and would have been required to repeat the course. To have had 250 pupils repeating the course would have called for six or eight extra teachers and extra rooms. On the basis of the average cost of a year's schooling, this promotion of 250 pupils was a saving to the taxpayers of Racine of between $10,000 and $15,000 in the year. Think of what the saving to the whole country will be when visual education has been fully worked out and entered into all the schools!

There are in the common schools of the country at this time in the grades below the high schools over 20,000,000 pupils enrolled. The record shows over 15,000,000 in attendance. The average annual cost per pupil in these schools in 1914 was not far from $30 each. This cost has doubtless doubled since then. An average of ten percent failure in this number gives us about 1,500,000 pupils to repeat the work. This at $60 per pupil makes the very respectable sum of $90,000,000. Suppose now the introduction of a visual education would cut this failure record down to five percent on the average. That would make a saving of $45,000,000, a prize well worth working for. Not only can this improvement be made in the grades, it can be made in some measure in the secondary schools as well. The equipment thus made ready may serve in Americanization work, in churches, and in community centers. This is a wide and magnificent opportunity for service. It is worthy the best brains and most serious effort of all of us.

CONSULTATIVE WORK IN GEOGRAPHY AS A MEANS OF IMPROVING ITS TEACHING*

By ALISON E. AITCHISON
Cedar Falls, Iowa

IT is being realized more and more fully that to improve immediately the work which is being done in geography in the elementary schools some effort must be made to help the teachers while they are in service. Many of them have neither opportunity nor time to stop teaching and take courses in college or normal school. Many more have attended such schools and have taken no courses in geography, either because it was not required or because they considered it a subject which anyone could teach without special preparation. So into the grades they went from high school and college to teach geography, they themselves not having touched it, or anything akin to it since they left the seventh grade.

In the meantime great changes have taken place not only in the subject matter of geography but in the methods of presenting it.

Endeavoring to meet these conditions which exist everywhere, the Extension Division of the Iowa State Teachers College sends out through the state, a member of the geography faculty to do what is termed "Consultative Work in Geography." Of course the number of places which can be taken care of in any one year is very limited. A schedule is arranged allowing the consultative worker to spend from two to four days in a school system, the number of days varying with the size of the town.

On meeting the city superintendent the first morning a general program is laid out. This is often changed greatly as individual teachers ask for help along some special lines. The visit of the consultative worker is much more satisfactory to all when the superintendent and teachers have discussed the plan beforehand and know the purpose of the consultative work and what they may hope to gain from it.

Generally the first day is spent in visiting classes. This gives the visitor an idea of the course of study and the quality of the work being done besides enabling him to meet the individual teachers and judge to some extent their problems. The program is so arranged that classes in geography can be visited at every period from nine till four. Thus by the time school closes one has a fairly good idea of the work in two or three different buildings. The superintendent and the principal of the building visited, are generally present at all recitations.

After school from three-thirty or four o'clock to five or five-thirty a conference is usually held with the teachers, principals and superintendent. At this time some of the general principles of geography teaching are discussed and the teachers bring up questions pertaining to their own particular grades, dealing either with subject matter or with methods of presentation.

The second day is most frequently spent in demonstration teaching either before all the teachers of a certain grade at one hour and those of another grade at another hour or before all the teachers of one building at one time. In larger places two days are given to this work since it is not easy for all the teachers to meet at one building. The demonstration teaching is followed always by a discussion, sometimes a very lively one.

Slightly different problems present themselves at each place. Some schools are working out new courses of study and the superintendent requests help on that. Effective work may be done in that way as few superintendents have either the time or the detailed knowledge of geography to enable them to plan a course in the subject which will be really helpful to inexperienced teachers. Most of the courses simply say "for the fall term course: pages — to— in— the first book of—".

In other schools little supplementary material and few wall maps are on hand and suggestions for their selection can be made. Often conferences are held with individual teachers who ask for help in the improvement of their own class room work.

The experience of many Iowa schools shows that here is a method that may be applied to any state, yet so far but little taken advantage of, of reaching the teacher just when she feels the greatest need of help and is willing to ask for it. If we believe that geography can bring something to the child that no other subject can, we must make immediate efforts to see that it is made to occupy a more significant place in the curriculum of every elementary school.

* From Magazine service of the National Council of Geography Teachers. A. E. Perkins, Director, George Peabody College for Teachers.

WHY TEACHERS ARE LEAVING THE SCHOOLS

A SIXTEEN-YEAR OLD BOY greasing coal cars and dumping them in Hastings, Colorado, receives as much pay as the principal of the schools.

The average annual salary for rural teachers in a Southern State this year was $354. The average for white men teachers was $385; for white women teachers $327.

Forty per cent of the rural teachers of the United States receive less than $600; nearly 30 per cent receive less than $500; 15 per cent less than $400, and a great many teachers receive from $100 to $300 a year for teaching school.

New York City, it has been estimated, spends $250,000,000 this year on automobiles and something over $36,000,000 on teachers.

ENGLISH TEACHERS COLUMN

THE LITTLE GRAMMAR

REFERENCE has been made in this column in recent issues of the HIGH SCHOOL JOURNAL to a report of a committee of the English Department of the University of Wisconsin concerned with the futility of university training in composition based on such ignorance of grammar as prevails among our high school graduates. How much grammar is absolutely indispensable? The following "Little Grammar," included in the committee report, answers the question intelligently.—N. F.

"THE LITTLE GRAMMAR"

The question may be asked: "What are the elementary facts of English grammar?" No intelligent answer to this question, it would appear, can fall so wide of the mark as to be seriously unsatisfactory. The following table is offered, not as giving a categorical answer to the question but as affording suggestions which might possibly contribute to such an answer. It represents, in outline, the opinion of instructors in the course in Sub-Freshman English at the University of Wisconsin—an opinion gradually arrived at through considerable experience—as to what elements of English grammar are absolutely indispensable to an understanding of sentence structure and punctuation.

(Attention should perhaps be called at this point to the existence—sometimes forgotten—of a uniform system of grammatical nomenclature, a matter of great potential importance to all teachers of language.)

I. THE PARTS OF SPEECH AND THEIR USE:
- *Noun*: Number, case-forms.
- *Pronoun*: Kinds, person, gender, case-forms.
- *Adjective.*
- *Verb*: Kinds, conjugation (especially indicative mood), person, number, voice (particularly passive voice), mood, non-model forms (infinitive, gerund, participle), tense.
- *Adverb.*
- *Preposition.*
- *Conjunction.*
- *Substantive*: Common term for noun, pronoun, infinitive (usually), gerund.

II. THE SENTENCE:
- *Structure*:
  - The subject and the predicate:
    - The skeleton (subject substantive and predicate verb).
    - The modifiers: adjectival and adverbial (single words and groups of words).
    - Objects and predicate substantives.
    - The complete subject and the complete predicate.
  - Clauses:
    - Principal.
    - Subordinate: substantive, adjectival, adverbial (complete and elliptical).
  - Phrases: Absolute, gerund, participial, prepositional, infinitive.
- *Kind*: Simple, compound, complex.

III. CONNECTIVES:
- Prepositions.
- The coördinating conjunctions.
- The subordinating conjunctions.
- The relative pronouns (restrictive and non-restrictive use especially).
- The conjunctive adverbs.
- The conjunctive adverbs.

IV. AGREEMENT:

V. THE NOMINATIVE AND ACCUSATIVE CASE.

THE MATHEMATICS COLUMN

MATHEMATICS IN SECONDARY SCHOOLS

"THE Problem of Mathematics in Secondary Education," is the subject of *Bulletin* 1920, No. 1, of the Bureau of Education. Copies can be obtained for five cents from the Superintendent of Documents, Government Printing Office, Washington, D. C.

This bulletin is the report of the commission on the reorganization of secondary education appointed by the National Education Association. The arguments presented are familiar to those who have followed the trend of educational thinking for the past ten years. The so-called "logical arrangement of subject matter" is criticised as being unsound from the point of view of good teaching, and the general proposition is laid down that nothing should be studied which cannot be justified in its own merits; that is, unless it can be shown to have direct applications in the lives of the people who are to be trained under the new system. In my opinion not many such applications will be found for those subjects in which accurate knowledge is supposed to be of use. We are discussing the advisability of training to meet a first-class opponent by practicing against third or fourth-class performers. The work in mathematics is discussed for four different types of students. How such divisions can be

made in secondary schools will perhaps be clear to the teachers in such schools; it is certainly not clear to me. First, the general readers; second, the group preparing for certain trades; third, the group preparing for engineering; fourth, the group of specializers.

For the general readers arithmetic and mensuration, use of simple formulas, simple algebraic equations, negative numbers, the motion of function and graphs are specified. For those preparing for certain trades solution of right triangles and geometry of the circle are added to the above. In the case of those preparing for engineering it is suggested that the present high-school courses could be adapted to their needs by excluding topics which are of more theoretic than practical interest. Those expecting to specialize in mathematics could go along with the prospective engineers for the most part, but would have the opportunity of electing subjects which are taught as much for their bearing on advanced work as for their practical value. The bulletin is worthy of the attention of teachers of mathematics as it not only contains ideas useful in our present system but shows also the kind of thing educators have in mind when they speak of reorganization.

For my own part I cannot help feeling that a great many very practical facts are always overlooked by the advocates of such reorganization as is outlined in this bulletin which really amounts to the extension of the elective system to include perhaps the eighth grade. If students could know at that step in their schooling just what they will do in life, many things could, with profit, be left out from their following years in school and many important things put in place of them; but it is safe to say that not one student in a hundred knows at the end of his eighth school year what he will make his job for life, and it is wrong and undemocratic to allow him to decide at that stage what courses he wants to pursue in his subsequent training. Furthermore, we are not justified in assuming that some other kind of secondary training than that given to those who expect to go to college is better for the boy who does not expect to go to college. The whole theory of education is based upon the belief that men have reached their present status through the use of language, science, and religion, when properly applied, and that these subjects must be taught to each generation to the fullest possible extent. If we should decide to educate people on the theory of training those who are down to stay down, we should very probably find it advisable to separate those we expect to keep down in this way from those we expect to become leaders and enjoy the good things of life, perhaps at the end of the eighth school year. This has been done in Germany with a great deal of success; but the one thing that distinguishes the social life in the United States from that of most other countries is that as yet class lines are very weak, if they exist at all, and any form of education which makes distinctions as early as the first year in high school is certainly un-American, to say the least.—A. W. H.

THE NEW ENGLAND ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS

By EDWIN D. PUSEY
Superintendent of the Durham City Schools

THE SPRING meeting of the New England Association of Colleges and Secondary Schools held at Yale University on April the 24th was featured by addresses from men of national prominence in educational work. From ten-thirty until one an audience that packed Lampson Hall listened to a discussion of modern school problems by President Hadley and Dr. William Lyon Phelps of Yale, by Dr. James J. Sullivan, State Historian of New York, and by Dr. Frank E. Spaulding, Superintendent of the Cleveland Schools and dean-elect of the School of Education at Yale.

President Hadley told the association that teaching will not reach its highest efficiency until the public is brought to understand that the responsibility for good work on the part of school children rests upon the parents and the children themselves, that then teachers can teach and will not have to spend their time in coaxing and driving. Dr. Phelps in his pleasing and inimitable manner told of the joy and pleasure to be found in teaching and of the rewards it has to offer as a profession other than pecuniary. Dr. Sullivan attacked many of the plans and devices used in Americanization. He showed by concrete illustrations that Americanization can be easily accomplished by kind treatment of the immigrant, by educating his children, and by encouraging him to acquire property. Dr. Spaulding deplored the fact that teachers' associations as such have made no effort to raise the qualifications for teaching. He accounted for this by showing that the present standards of school work are local rather than general, and that the majority of teachers look upon teaching only as a temporary occupation because of the relatively high minimum and the relatively low maximum salary found in the usual salary schedule. He urged that training courses for elementary school teachers be extended to four years and suggested that herein lay a field of great opportunity to colleges for women.

After luncheon, Dr. Irving Fisher, Yale's political

economist, discussed the relation between salaries and the cost of living. He advised the adoption of a sliding scale in salary schedules, the salary to be based on the purchasing power of the dollar, to go up when the purchasing power is low as at present, to come down when the purchasing power is high. The association ordered the appointment of a committee to work out a model salary schedule based on Dr. Fisher's suggestions.

The most brilliant part of the meeting from an oratorical point of view came towards the end when Profesor Dallas L. Sharp, of Boston University, and President Meikeljohn, of Amherst College, gave their views of education for democracy in the form of a debate in which there were no rejoinders. It is a common saying in New England that when Sharp and Meikeljohn speak at the same meeting there will be fire works, and fire works there were Saturday. Professor Sharp, though he was educated in a private school and is teaching in a private college, would have all private schools and private colleges abolished and would have all children educated in public institutions. He pictured the life of the four little Sharps in the public schools of Hingham. He contrasted their training in the democratic atmosphere of the public school with that of the sons of some of his friends in the aristocratic exclusiveness of the private school. President Meikeljohn responded to the story of the four little Sharps with that of the three little "flats" who are being educated in a private school. With great vehemence he showed that they were being trained to fight democracy's battles, and that private schools and private colleges of different types and kinds are necessary in any complete system of education for democracy. Both speakers condemned vocational education as tending to develop a caste system.

The Southern Association of Colleges and Secondary Schools was represented at the meeting by Superintendent E. D. Pusey, of Durham, who in bringing greetings from the Southern Association told something of the work that is being done in the South.

ARE TEACHERS PAID WHAT THEY ARE WORTH?

THE FOLLOWING thoughtful communication from Mr. Thorndike Saville, Associate Professor of Hydraulic Engineering in the University of North Carolina, presents the question of teachers' salaries from a point of view that is not commonly accepted. Whether or not any thoughtful reader will take issue with Professor Saville in his contention that teachers "as a whole, whether in the secondary schools or colleges, . . . get on an average about as much as they are worth" is immaterial. His presentation of the case provokes thought, and for this reason we are passing it on to our readers for what it is worth. He writes:

The appeal from Dr. Williams in your last issue, entitled "A Changed Viewpoint," should meet with more positive encouragement than it is likely to get. For a long time it has been customary to regard teachers as "sacrificing" something for the "love" of teaching, or study, or research. The community is supposed to benefit at the expense of the comfort and well-being which an able teacher is thought to curtail for the sake of his profession.

With some exceptions, the reverse is usually true. Taking into account teachers as a whole, whether in the secondary schools or colleges, they get on an average about as much as they are worth. It is foolishness to talk about how much more this or that teacher or professor could make if he left teaching and went into business. In nine cases out of ten, if he could do better in business, he would go with never a thought of his beloved academic atmosphere. Usually he is getting all the money he is worth right where he is, and that's why he stays. True, with the increased cost of living the teacher's income must be increased, but only in proportion.

The able man or woman, in teaching as in any other profession, is paid on the average what he or she is worth. Today the teacher in the professional school can make his $5,000 to $15,000 per year as well as any professional man, and a goodly number are doing just that. When he can do better in non-teaching work, he abandons teaching. Teachers of equal ability in the non-productive branches of learning have deliberately chosen their calling. Either they can make more money at that work than in any other way, or they have chosen to forfeit monetary remuneration in other fields for the attractiveness of their calling. If, being able to earn more money in other work, a teacher remains in teaching, it is for one of three reasons: laziness, indifference, or preference. There is no cause for whining on the part of the teacher. It is the public which suffers.

The salaries paid the teaching profession today are, it is true, inadequate. Not inadequate for most of the teachers receiving them, but (as Dr. Williams indicates) inadequate to retain the best teachers. The ablest teachers in many branches *are* leaving the profession because they are underpaid. The majority of those left and entering receive what they are worth, or are willing to compromise between low salary with the attractiveness of the teacher's life, and more money with the competition and stress of the business world. The emphasis, as Dr. Williams points out, should not be placed on complaints of teachers at the poor salaries paid them, but on the public paying more money to retain or attract the best teachers. Education is too vital a thing in the preservation, progress, and prosperity of our civilization to handicap our youth by the poor teachers who (on the average) will consent to instruct for poor pay. The taxpayer, who is the ultimate judge in the matter of teachers' salaries, should be shown that he and his children get the best return for their money when sufficiently large salaries are paid to attract able teachers, and when enough teachers are employed to enable each to work efficiently.

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EDITORIAL COMMENT

Is a good bricklayer worth more to industry than a good teacher is to the state?

Must teaching forever remain the poor relation of the professions? If so are we not in danger of losing our sense of values?

With a teacher shortage of 140,000, isn't it about time for the states (or shall we say nation?) to take a stronger hand in the administration of our educational affairs?

What is this we hear about Greensboro children's breaking the record of the United States in intelligence tests recently given by the Strayer survey staff? Let's see now if the voters of Greensboro can score as good a record when they come to vote on the question of issuing the $2,025,000 in bonds needed to provide necessary school buildings and equipment. Here's hoping they will.

If you are a missionary, you had better let the crude people, for whose salvation you are laboring, find it out for themselves. If you tell them bluntly that your mission is to save them from their own ignorance and superstition, look out lest they repudiate you. In other words, you must learn to accept conditions and people as they are. A little common sense and a bit of tact are small but essential factors in winning big human causes.

It requires just as good administrative ability to run a school system successfully as it does to run an industrial plant successfully, and good ability in the educational work should be just as well rewarded as should good ability in the industrial field. Gentlemen of the school board, if you have a good superintendent, don't let him get away from you. He is worth as much to your school system as he is to any commercial enterprise.

Never in their history have the summer schools offered greater opportunities for summer study; and never have the teachers shown greater appreciation of the provision the better institutions have made to give them these opportunities. The indications are that the better summer schools will be crowded to the limit this summer with live teachers pursuing advanced courses.

The Greensboro Survey

The city of Greensboro has just been through the throes of a school survey. Suspecting the inadequacy of the buildings and equipment provided for the school children of the city, Superintendent Frederick Archer suggested to the board of education that experts in school administration be called in to look over the situation in great detail and report their findings. This the board of education deemed wise and expedient. Dr. George D. Strayer, of Columbia University, and a staff selected by him were called in and they have recently reported on their findings.

The corps of workers confirmed Mr. Archer in his opinion that the school buildings of Greensboro are very inadequate, out of date, and improperly constructed. Further, his opinion concerning the equipment as insufficient and improper was also confirmed. Considerable attention to details was given by the staff of workers and the detailed study confirmed and accentuated the surface appearances. In fact it is found that Greensboro does not have a single school building which meets standard requirements nor does it have in any school adequate teaching apparatus.

To the school children a series of tests of general intelligence were given and the results show that, taking into consideration the white children only of Greensboro, these school children score higher in intelligence as measured by these tests "than have the children in any other city in which this type of examination has been given." This speaks well for the quality of raw materials with which the teachers in the Greensboro school have to work. They evidently have good raw material but a wholly inadequate plant and machinery with which to work it up.

The building program for Greensboro proposes a new high school building on a ten-acre lot, a new 16-room grade building to replace the Asheboro Street School, a new 14-room building in the vicinity of the

West Lee Street School, a new 12- or 14-room building in the vicinity of the Cypress Street School, and a remodeling of the present high school building to be used as a grade building. For the colored children a new building is called for at Ashe Street, and one at Percy Street, with additions to the East Washington Street School. This program calls for a total expenditure for buildings and equipment amounting to $2,025,000.

Greensboro has had the foresight and wisdom as well as discretion guiding her in the method by which she attacked her school problems. She has first tried to find out in the whole and in detail exactly what her needs are; there has not been guess-work and the plan is clear-cut and definite. Knowing, now, her own situation, we have faith to believe that she will immediately begin to work out this big program in her big Greensboro way. Many of her sister cities might well imitate her example and "find out where they are at." It has taken courage to face these facts, it will take perseverance and determination to complete the work so admirably begun. We rejoice for the sake of the children that the Gate City seems to retain somewhat at least of that old-fashioned virtue we used to call "pluck."—L. A. W.

THE PASSING OF A VETERAN

SUPERINTENDENT W. H. Maxwell, the noted leader of public education in New York City, died at his home on the morning of May third from arteriosclerosis after a semi-invalidism of several years. Thus passes away a veteran from the ranks of progressive schoolmen in the nation.

Dr. Maxwell was a native of Ireland who came to New York in 1874 seeking a place in public school work. Not being a party politician and unwilling to play the political game according to the rules of the party machine, he found difficulty in "breaking into" the New York public school system. He took up newspaper and magazine writing as a means of support and, after nearly ten years of forceful and notice-compelling writing on educational topics, he forced the attention of leaders to consider his qualifications and was made Associate Superintendent of Schools of Brooklyn in 1882. He was made Superintendent in 1887, which position he held until the consolidation of the five boroughs into the Greater City in 1898 when he was made Superintendent of Schools of New York City. This position he held until a few years ago when ill health made his appointment as Superintendent Emeritus necessary.

Those who knew Dr. Maxwell felt the sterling qualities and high ideals of the man to be more than ordinary. A firm believer in rewarding merit as well as in creating a teaching profession, he fought for the removal of teaching appointments from the civil service until he won. Increased pay and a salary schedule based on training and successful experience made New York City the focus of attention for school administrators. Acting on his own judgment, steadily maintaining his ground when assailed, he was the storm center for many political upheavals.

As a school administrator Dr. Maxwell had few equals; as a man he was above reproach. He was stern but just, progressive but sane, straight in his dealings, keen in his thinking, helpful in his suggestions, a power for honor and recognition of merit wherever found. He was a reformer without radicalism, a diplomat without duplicity, a fighter without malice.—L. A. W.

THE NEW SCHOOL

THE teacher is the New School. We may plan and discuss and build, but the teacher has the final word. If he does not understand and insists upon the cramming, jamming process, our efforts are wasted. The teacher of the New School understands. He is an expert in child culture. He has, beside his expert knowledge of class room technique, some definite message for the children in his classes.

He has a gift, a live interest that has kindled and kept his soul alive. Some people call it a hobby. He is a drawing teacher. He lives in terms of color and line and form. The children revel in the beauties he unfolds for them.

One teacher is a dramatist, one is a gardener, one is a scientist, one is a writer, one is a musician, one is a sculptor. These gifted teachers are the ones that put wings on the work of the day. They inspire children to "Come up higher." Without such we are but "hewers of wood and drawers of water."—University of Virginia *News Letter*.

A NATIONAL EDUCATIONAL CONFERENCE

"THE EMERGENCY in education in the United States arising out of present and prospective shortage of teachers," writes Dr. P. P. Claxton, U. S. Commissioner of Education, "the necessity for large increases in funds for the support of schools of all kinds and grades, and the need for readjusting programs of education to the requirements of the new era are, I believe, so great as to justify the calling of a National Conference of representative citizens to consider the pressing problems of education from the standpoint of statesmanship and the public welfare. I am therefore calling such a conference to meet in Washington May 19, 20, 21."

NORTH CAROLINA SCHOOL NOTES

A NEW BUILDING AT ROANOKE RAPIDS

THE accompanying cut of the Junior-Senior High School Building at Roanoke Rapids gives only an idea of the style and structure of the edifice, since only the front elevation is shown. This building is perhaps one of the most ambitious school structures to be undertaken in any small town in the state. When completed it will be approximately 210 feet square and will be three stories entirely above ground. The section of the building now in process of erection will be 210 feet long, and about 66 feet deep. In the rear will be an extension containing the auditorium.

The building is designed in the Collegiate Gothic and is to be built of selected common brick laid with a pattern on the exterior surface. In the center is a large Gothic tower forty feet square which extends well above the main roof. Cut limestone will be used for trimmings, and the design contemplates the use of a slate roof.

The forward portion of the building will contain twenty-four separate class rooms and laboratories with numerous coat rooms and ample storage facilities. In addition to these is a large room to be used as a music conservatory. The entire forward portion will be equipped with the most modern fire proof outside stair-cases.

The auditorium will have a seating capacity of between 1,800 and 2,000, and will have a stage 27 feet deep by 74 feet long. The stage is so constructed as to provide ample dressing rooms, scenery loft, and other accessories, and will be of sufficient height to accommodate any plays that are on the road. In the rear of the auditorium will be a large gallery at the top of which will be a fully-equipped moving picture apparatus.

In the basement of the auditorium wing will be located the boiler plant and a large gymnasium 48 feet by 74 feet, around the gallery of which will be suspended a running track. This gymnasium will have a clear space large enough to be used for basketball games, and will be equipped with the most modern apparatus that is available. Immediately to the rear will be located dressing rooms with separate lockers and shower baths for boys and girls, and immediately under the stage will be a large swimming pool twenty feet by fifty-eight feet, fully equipped with warming and sterilizing apparatus.

The community is growing so rapidly that the board knew it was unnecessary to build for the present only; therefore, the building is so laid out that future wings can be added as the requirements demand. From 20 to 30 class rooms and laboratories can be added without destroying the effect which the front elevation of the building produces. Mr. Hobart B. Upjohn, a well-known architect of New York City, designed the building. A large force of workmen is busily engaged in the construction, but the task is so large that it is not expected that the building will be ready for occupancy before September, 1921.—E. J. C.

ASHEVILLE WINS HIGH SCHOOL DEBATE

THE eighth annual final contest of the North Carolina High School Debating Union came to a conclusion in Memorial Hall at the University of North Carolina on the evening of April 23rd, when Arthur Kale and Clifton Ervin, representing the Asheville high school, received a three-to-two vote of the judges

CLIFTON ERVIN AND ARTHUR KALE
of the Asheville High School, winners of the Aycock Memorial Cup for 1920, and Carl B. Hiatt (standing) one of their instructors who helped to train the Asheville teams in the art of debate.

MISSES BLANCHE HENLEY AND ELIZABETH EDWARDS

of the Goldsboro High School, who, defending the negative side of the query to restrict immigration, put up a strong debate but lost by a vote of 3 to 2.

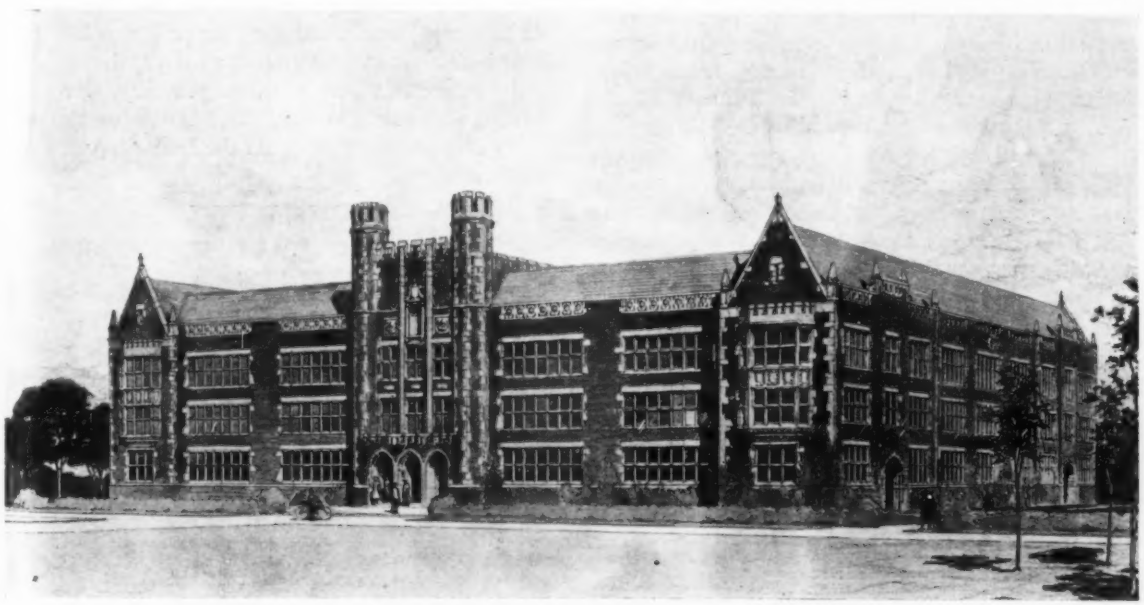
MISS PAULINE SHUFORD

who graduates from the Asheville High School this year with a perfect attendance record. She has not been absent from a single class or tardy a single time since she entered the Asheville schools ten years ago.

over Elizabeth Edwards and Blanche Henley, representing the Goldsboro high school, and were awarded the Aycock Memorial Cup.

In this final debate for the Aycock Memorial Cup the Asheville boys upheld the affirmative and the Goldsboro girls the negative side of the query: *Resolved, That the United States should adopt a policy of further material restriction of immigration.*

President Chase presided over the final debate, and E. R. Rankin acted as secretary. Prof. N. W. Walker, chairman of the High School Debating Union Committee, presented the Aycock Memorial Cup, the trophy given by the Carolina inter-collegiate debaters, to the winning team. Dean M. C. S. Noble, of the School of Education, presented the cups and medals to the winners in the inter-scholastic track meet. The judges for the final debate were Professors H. H. Williams, L. P. McGehee, Edwin Greenlaw, L. R. Wilson, and W. S. Bernard. Careful observers who have heard all of the final debates for the past eight



THE NEW SCHOOL BUILDING UNDER CONSTRUCTION AT ROANOKE RAPIDS, N. C.

years pronounced this year's debate the best of all the final debates that have been held.

Two hundred high schools took part in the triangular debates held throughout the State on April 9th. Forty-four high schools won both sides of the query on this date, and under the regulations governing the Union, sent their teams to the University for the final contest. Through a process of elimination in Chapel Hill, on April 22nd and 23rd, the eighty-eight teams were narrowed down to the Asheville affirmative team and the Goldsboro negative team.

The schools which sent their teams to the University were: Apex, Asheville, Bessemer City, Bethel, Biltmore, Burlington, Charlotte, China Grove, Cornelius, Dell School, Dixie, East Bend, Enfield, Falling Creek, Franklinton, Goldsboro, Guilford College, Hamlet, Hickory, Kenly, Kinston, Lexington, Newton, Oakwood, Orrum, Princeton, Pineville, Red Oak, Roanoke Rapids, Rockingham, Roper, Rutherfordton, Scotts, Sanford, Stem, Stony Creek, Taylorsville, Teachey, Vanceboro, Wesley Chapel, Woodland, Currituck, Churchland, and Hallsboro.

"High School Week"—the events of which are the final contest of the High School Debating Union, the inter-scholastic track meet, and the inter-scholastic tennis tournament—has come to be recognized as one of the principal occasions at the University for the calendar year. Memorial Hall is always crowded with interested spectators for the final debate.

FRIENDSHIP WINS TRACK MEET

THE eighth annual inter-scholastic track meet of North Carolina, held at the University, on April 23rd, was won by the Friendship High School of Alamance County. The scores made by the various schools taking part in the meet are as follows: Friendship 27, Greensboro 21, Chapel Hill 19, Sand Hill 13, Huntersville 10, Burlington 10, Durham 9, High Point 1. Friendship High School was awarded the trophy cup, and the Greensboro High School was awarded the cup given each year to the winners of the relay race. Ninety contestants took part in the inter-scholastic track meet this year.

WILSON WINS TENNIS TOURNAMENT

THE Wilson High School won the fifth annual inter-scholastic tennis tournament held at the University on April 22nd and 23rd. The Wilson representatives were successful in winning the championship both in singles and doubles. Other schools which took part in the tournament were: Burlington, Durham, Greensboro, and Asheville.

ACCREDITED SCHOOLS

THE North Carolina schools that are accredited for the current year by the Association of Colleges and Secondary Schools of the Southern States are as follows:

Asheville: *Asheville School, Bingham School,* City High School, *Normal and Collegiate Institute, St. Genevieve's Academy;* Burlington: High School; Chapel Hill: High School; Charlotte: *Horner Military School;* Durham: City High School, *Trinity Park School;* Edenton: High School; Elizabeth City: High School; Goldsboro: High School; Greensboro: High School; Greenville: High School; Hendersonville: *Blue Ridge School for Boys,* City High School; Kinston: High School; Laurinburg: High School; Mars Hill: *Mars Hill College;* Monroe: High School; Oak Ridge: *Oak Ridge Institute;* Raleigh: High School; Rocky Mount: High School; Scotland Neck: High School; Smithfield: High School; Tarboro: High School; Wilmington: High School; Wilson: High School; Winston-Salem: City High School, *Salem Academy.*

PRESIDENT CHASE INAUGURATED

THE INAUGURATION of Dr. H. W. Chase as President of the University on April 28th brought to Chapel Hill one of the most distinguished assemblages of prominent educators that North Carolina has ever had the privilege of entertaining. Ideal weather conditions made it possible for the inauguration committee to carry through its plans for the day without a hitch at any point in the exercises. Some remarkable utterances on several aspects of higher education were delivered by the several speakers. President Chase's inaugural address was pronounced a masterpiece. The full proceedings will be published soon by the University. Dr. Chase's administration of the University's affairs during the past year has given great satisfaction to the friends of the University, and to the people of North Carolina generally. Every indication now points to the greater expansion and prosperity of the institution under the leadership of President Chase.

THE NORTH CAROLINA EDUCATIONAL CONFERENCE

"OVER six hundred citizens of the State of North Carolina gathered at Greensboro on May 4th and 5th to attend the Citizen's Conference on Education. They came with the single purpose of constructing a State program of education which should meet the present emergency. It was a working Conference in the full sense of the term. Many called it the most effective educational meeting ever held in the South."—*N. C. Community Progress.*

THE GEORGE PEABODY SCHOLARSHIP

THE George Peabody Scholarship was founded in 1912 by the Trustees of the Peabody Education Fund, who, in partial preparation for the closing of the Trust, presented to the Johns Hopkins University a gift amounting to six thousand dollars. This sum is to be held and used as the endowment of a Peabody Scholarship in the department of Education.

The scholarship is open to men and women who are residents of "The Southern and Southwestern States of our Union," including Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, South Carolina, Tennessee, Texas, Virginia and West Virginia. It is offered to candidates who can give evidence of a liberal education, such as the diploma of a college of good repute, and who intend to continue work in education, preferably in connection with a system of public schools in the territory mentioned above. *Applications must be addressed to President Goodnow, The Johns Hopkins University, Baltimore, Md. There is no prescribed form.* The successful candidate is expected to signify his acceptance at once.

The income of the scholarship is two hundred and seventy dollars per annum. The incumbent is expected to pay tuition and laboratory fees and is eligible for reappointment.

BOOK NOTES AND REVIEWS

METHODS OF TEACHING IN HIGH SCHOOLS. Revised. By S. C. Parker. Ginn & Co. Price, $2.00.

This volume is a revisal of Parker's earlier book of the same title, the revisal being made necessary in the light of new scientific investigations. The text gives to readers and students the results of the most recent investigations and discussions in the field of general methods in high school teaching. These changes while slight are very important, and the new edition should meet an even more cordial reception than did the earlier volume.—L. A. W.

INTELLIGENCE TESTS. By M. E. Haggerty. The World Book Company, Yonkers-on-Hudson, New York.

These tests are usable in estimating the intellectual ability of children in public schools. Their chief advantage lies in the fact that they are so easily administered to large groups of pupils at the same time. A further advantage is found in the ease with which the results are scored, tabulated and interpreted.

Coupled with the standard subject-matter tests this material is of immediately practical value in the placement of pupils in the grades and in so administering the courses as to meet individual needs of public school pupils.—L. A. W.

ZOOLOGY—A TEXT-BOOK FOR COLLEGE AND UNIVERSITIES. By T. D. A. Cockerell, Professor of Zoology, University of Colorado. Cloth. xii + 568 pages. Illustrated with maps, charts, drawings, and photographs. Price, $3.00. Yonkers-on-Hudson, New York, World Book Co.

Zoology for the average individual who will not specialize in the subject should not be too rich in detailed facts of structure and classification. Experience shows that much minutæ are not remembered, and do not necessarily leave as a residue any broad and useful conceptions. "Zoology, a Textbook for Colleges and Universities," by Professor Cockerell, is based on these views. The book grew out of a course that was developed in actual and successful teaching experience. It is calculated to convey to students a point of view that will be of social value.

The High School Boy and His Problems. By Thomas A. Clark. The Macmillan Company, New York. 1920.

Handbook of Composition, Revised. By Edwin C. Woolley. D. C. Heath & Company, New York. 1920.

A Source History of the United States. By Howard Walter Caldwell and Clark Edmund Persinger. Ainsworth & Company, Chicago.

How to Become an Office Stenographer. By W. L. Mason. Isaac Pitman & Sons, New York. 1919.

Practical Grammar for High Schools and Academies. By P. H. Deffendall. Ainsworth & Company, Chicago.

Fundamentals of Mathematics. By Harold O. Rugg and John R. Clark. World Book Company, 1919.

Grammaire Elementaire. Illustrée et Augmentée. By Emma C. Armand. D. C. Heath & Company, New York.

History of Europe: Ancient and Mediaeval. By James Henry Balasted and James Harvey Robinson. Ginn & Company. 1920.

Shakespeare's *Twelfth Night*. (Macmillan's Pocket Classics.) Edited with Introduction and Notes by Edward P. Morton. Macmillan Company. 1920.

The Southern Poets. (Macmillan's Pocket Classics.) Selected and edited by William Lander Weber, Emory College. The Macmillan Company, 1919.

Dickens' Barnaby Rudge. (Living Literature Series, under the general editorship of Richard Burton.) Edited by Leon H. Vincent. The Gregg Publishing Company, New York. 1919.

Huxley's Autobiography and Essays. (Living Literature Series.) Edited by Brander Matthews. Gregg Publishing Company, New York. 1919.

Civilization and The World War. By Anson Daniel Morse, Late Winkley Professor of History in Amherst College. Ginn & Company, New York. 1919.

Sargent's Handbook of American Private Schools

AN ANNUAL SURVEY AND REVIEW critically describing Private Schools of all classifications and Summer Camps for Boys and Girls.

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